REMARKS

The (Final) Office Action mailed October 6, 2006 has been carefully considered. Claims 1, 2, 8, 9, 11, 12, 14-16, 18, 19, 25, 26, 28, 29, 31-33 and 35 are pending in the subject application and have all been rejected by the Examiner. Claims 1, 2, 8, 11, 18, 19, 25, 28 and 35 have been amended. The claims have been amended and a new declaration under 37 CFR has been filed to address the concerns raised by the Examiner. In view of the arguments below, reconsideration and allowance of the subject application's claims are respectfully requested.

The Examiner has asserted a rejection of Claims 1, 2, 8, 11, 12, 14, 15, 18, 19, 25, 28, 29, 31, 32, and 35 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,216,211 ("McBrearty"). The Examiner has also asserted a rejection of Claims 1, 2, 8, 11, 14, 16, 18, 19, 25, 28, 31, 33, and 35 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,210,865 ("Davis").

The Examiner has also asserted a rejection of Claims 9 and 26 under 35 U.S.C. § 103(a) as being unpatentable over McBrearty in view of U.S. Patent No. 3,704,453 ("Blackwell"). The Examiner has also asserted a rejection of Claims 9 and 26 under 35 U.S.C. § 103(a) as being unpatentable over Davis in view of Blackwell. The Examiner has also asserted a rejection of Claims 16 and 33 under 35 U.S.C. § 103(a) as being unpatentable over McBrearty in view of McBrearty's background. The Examiner has also asserted a rejection of Claims 12, 15, 29, and 32 under 35 U.S.C. § 103(a) as being unpatentable over Davis in view of U.S. Patent No. 5,655,154 ("Jain"). Applicants hereby traverse these rejections and request reconsideration and allowance of Claims 1, 2, 8, 9, 11, 12, 14-16, 18, 19, 25, 26, 28, 29, 31-33, and 35 in view of the arguments herein.

The Examiner has also asserted that the declaration filed on August 3, 2006 under 37 CFR 1.131 has been considered but is ineffective to overcome the McBrearty reference. The Examiner has also asserted that the submission lacks sufficient conception evidence and proof of due diligence as set forth in MPEP 71 5.07 (III)(C).

The Examiner has also asserted Applicant's arguments filed 3 August 2006 concerning the use "business continuance features" as not persuasive and that the Applicant's specification has not made any limiting definition for the claimed terminology.

Claim Rejections – 35 U.S.C. § 102

The Examiner has asserted a rejection of Claims 1, 2, 8, 11, 12, 14, 15, 18, 19, 25, 28, 29, 31, 32, and 35 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,216,211 ("McBrearty"). The Applicants have filed a new Declaration under 37 C.F.R. § 1.131 which includes additional timeline details of due diligence and evidence of reduction to practice, including a company internal functional demonstration and printed manuals in advance of the McBrearty filing date. The Applicants respectfully assert that the revised Declaration under 37 C.F.R. § 1.131 filed herewith submission provides sufficient conception evidence and proof of due diligence as set forth in MPEP 71 5.07 (III)(C) and is effective to overcome this reference and therefore request removal of this rejection.

In the alternative, Applicants respectfully suggest that all of the elements of the modified independent Claims 1, 18, and 35 are not disclosed by McBrearty and therefore all depending claims should also be allowable for the same reasons that the independent claims are, and which reasons are discussed herein. It is a fundamental principle of patent law, that a claim cannot be properly rejected for anticipation unless each and every element of the claimed invention is

present in the reference. Here, the elements in Claims 1, 18, and 35 are not disclosed by McBrearty, as discussed below.

With respect to independent Claims 1, 18 and 35 claims recite, in addition to other features, "host computer having a mass storage subsystem with business continuance volume features and at least two volumes, comprising the step of executing in said host computer a time maker function command processor for parsing and implementing business continuance volume commands in order to transmit signals to and receive signals from said mass storage subsystem to activate said business continuance volume features."

Applicants respectfully assert that McBrearty does not disclose a host computer a time for parsing and implementing business continuance volume commands in order to transmit signals to and receive signals from to a mass storage subsystem and a separate mass storage subsystem which can cause these business continuance volume features to be activated in the storage subsystem.

Examples of Business continuance volume commands are shown in Figure 3a. These commands are Query 802, Establish 804, Re-establish 806, Split 808, and restore 810. Applicants respectfully assert that McBrearty does not teach or suggest the use of business continuance volume commands as described above. Instead, McBrearty deals with the use of two different "entry points" to a logical volume to provides either access to common data between a primary copy and back up copy, or data that is unique to the backup copy (from lines 48-57 of column 2).

The commands described by McBrearty are not the same as the business continuance volume commands claimed in the present application. The present invention uses relatively high level commands, such as those depicted in Figures 4a-4g, to implement processes that may

require a large number of operations. For example, the "Establish" command, shown in Figure 4b, invokes a whole series of operations, as shown in Figure 2c. These business continuance volume commands deal with operations on entire volumes (see the command syntax in Figure 3a).

In contrast, the commands described in McBrearty are on a much lower level. They deal with having separate "entry points" allowing for selective reading, and writing, of either common or unique data on either the primary or backup logical volumes. They do not cause mass storage subsystem to "activate said business continuance volume features" as claimed by the present invention. Instead, they are used in the actual "Accessing Mirrored Logical Volumes" (McBrearty Title). McBrearty does not describe any commands that implement high level business continuance volume commands such as establishing a BCV pair, splitting such a pair, synchronizing such a pair, or restoring such a pair, nor could McBrearty describe such commands because the system in McBrearty does not include any of those features.

Therefore, because McBrearty does not teach or suggest business continuance volume features or a processor that parses commands that activate those features, it does not disclose all of the elements of independent Claims 1, 18 and 35. Applicants therefore respectfully request that the rejection of these claims as being anticipated by McBrearty under § 102 be withdrawn.

The Examiner has also asserted a rejection of Claims 1, 2, 8, 11, 14, 16, 18, 19, 25, 28, 31, 33, and 35 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,210,865 ("Davis"). However, Applicants respectfully suggest that all of the elements of independent Claims 1, 18, and 35 are not disclosed by Davis and therefore all depending claims should also be allowable for the same reasons that the independent claims are, and which reasons are discussed herein. It is a fundamental principle of patent law, that a claim cannot be properly

rejected for anticipation unless each and every element of the claimed invention is present in the reference. Here, the elements in Claims 1, 18, and 35 are not disclosed by Davis, as discussed below.

The Examiner has also asserted the Applicants' specification has not made any limiting definition for the claimed terminology "business continuance features". The Applicants have modified the claims to include removing the use of business continuance features.

With respect to independent Claims 1 and 18, both claims recite, in addition to other features, "a time maker function command processor executing in said host computer for parsing and implementing business continuance volume commands."

Applicants respectfully assert that Davis does not disclose a mass storage subsystem with business continuance volume commands or a time maker function command processor for implementing business continuance volume commands.

Examples of Business continuance volume commands are shown in Figure 3a. These commands are Query 802, Establish 804, Re-establish 806, Split 808, and restore 810. Applicants respectfully assert that Davis does not teach or suggest the use of business continuance volume commands as described above. Instead, Davis deals with the use of "shadow sets." These shadow sets are essential groups of mirrored disks. Davis does not describe the members of the shadow sets as having the ability to split from the set to operate independently and then later to be able to rejoin the set using the Re-establish command and be synchronized with it (Specification page 42, line 15- page 43, line 9). Davis also does not describe members of the set that have been split off being able to restore the data on the other members of the set. These abilities, to split and then re-establish and synchronize (Specification

page 18, lines 8- 13) or restore, are described in the Specification of the present application as business continuance volume features, which is a claimed element of the present invention.

Furthermore, the commands described by Davis are not the same as the business continuance volume commands claimed in the present application. The present invention uses relatively high level commands, such as those depicted in Figures 4a-4g, to implement processes that may require a large number of operations. For example, the "Establish" command, shown in Figure 4b, invokes a whole series of operations, as shown in Figure 2c. These business continuance volume commands deal with operations on entire volumes (see the command syntax in Figure 3a).

In contrast, the commands described in Davis are on a much lower level. They deal with the reading, writing, and comparing of specific blocks on a disk. They do not "activate said business continuance volume features" as claimed by the present invention. Instead, they are used in the actual "transferring of data between storage media" (Davis Title). Davis does not describe any commands that implement high level business continuance volume commands such as establishing a BCV pair, splitting such a pair, synchronizing such a pair, or restoring such a pair, nor could Davis describe such commands because the system in Davis does not include any of those features.

Therefore, because Davis does not teach or suggest business continuance volume features or a processor that parses commands that activate those features, it does not disclose all of the elements of independent Claims 1 and 18. Applicants therefore respectfully request that the rejection of these claims as being anticipated by Davis under § 102 be withdrawn.

With respect to Claims 2, 8, 11, 14, and 16, which depend from Claim 1, and Claims 19, 25, 28, 31, and 33, which depend from Claim 18, the Applicants respectfully assert that these

claims are allowable over Davis for at least the same reasons as Claims 1 and 18, as discussed above.

With respect to independent Claim 35, the claim recites, in addition to other features, "a business continuance volume command activation device for parsing business continuance volume commands . . . to activate business continuance volume features associated with the mass storage subsystem." As discussed for Claims 1 and 18 above, Davis does not teach or suggest business continuance volume features or a processor that parses commands that activate those features. It therefore does not disclose all of the elements of independent Claims 1 and 18 and Applicants respectfully request that the rejection of this claims as being anticipated by Davis under § 102 be withdrawn.

Claim Rejections – 35 U.S.C. § 103

The Examiner has asserted a rejection of Claims 9 and 26 under 35 U.S.C. § 103(a) as being unpatentable over McBrearty in view of U.S. Patent No. 3,704,453 ("Blackwell"). The Examiner has also asserted a rejection of Claims 16 and 33 under 35 U.S.C. § 103(a) as being unpatentable over McBrearty in view of McBrearty's background. However, Applicants respectfully assert that the Declaration under 37 C.F.R. § 1.131 filed herewith is effective to overcome the McBrearty reference and therefore request removal of these rejections.

The Examiner has also asserted a rejection of Claims 9 and 26 under 35 U.S.C. § 103(a) as being unpatentable over Davis in view of Blackwell. The Examiner has also asserted a rejection of Claims 12, 15, 29 and 32 under 35 U.S.C. § 103(a) as being unpatentable over Davis in view of U.S. Patent No. 5,655,154 ("Jain"). However, Applicants respectfully submit that a prima facie case of obviousness does not exist for any of the Claims 9 and 26 or 12, 15, 29, and

32. Three basic criteria for establishing a prima facie case of obviousness are set out at MPEP 2143. First, there must be some suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference. Second, there must be a reasonable expectation of success. Finally, the prior art reference must teach or suggest all the claim limitations. The teaching or suggestion to make the modification and the reasonable expectation of success must both be found in the prior art, not in Applicants' disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991) cited at MPEP 2143.

As discussed above, all of the claim limitations are not taught or suggested by the prior art references. Specifically, Davis does not teach or suggest business continuance volume features or a processor that parses commands that activate those features, which are elements of independent Claims 1 and 18. Because Claims 9, 12, and 15 depend from Claim 1 and Claims 26, 29, and 32 depend from Claim 18, Applicants respectfully assert that these claims are allowable for at least the same reasons independent Claims 1 and 18, as argued above.

Neither the inclusion of Blackwell nor Jain teaches, suggests, or even motivates the use of business continuance volume features or a processor that parses commands that activate those features as claimed by the present invention. Blackwell deals only with the use of low level commands to control peripheral devices. Jain deals only with the sharing of utilities between operating systems. Although some of these utilities, such as the LABEL utility cited by the Examiner, may perform activities with the disks, they do not activate business continuance volume features as described in the present application. Neither Blackwell nor Jain, alone or in combination with Davis, teach or suggest the use of business continuance volume features, including the ability to establish a BCV pair, split such a pair, synchronize such a pair once they have been split, or restore such a pair once they have been split, which is an element of all of the

rejected claims of the present invention. Further, none of these references, alone of in combination, teach or suggest the use of a command processor to activate these features based on business continuance volume commands. In the absence of these features, such a processor would be totally unnecessary.

Therefore, because Davis, Blackwell, and Jain, alone or in combination, do not teach or suggest all of the claim limitations of the rejected claims, Applicants respectfully assert that the rejections of Claims 9 and 26 and of Claims 12, 15, 29, and 32 under 35 U.S.C. § 103(a) are unwarranted, and removal of these rejections is hereby respectfully requested.

Declaration under 37 C.F.R § 1.131

The Examiner has asserted that the declaration filed on August 3, 2006 under 37 C.F.R. § 1.131 is ineffective to overcome the McBrearty reference because the declaration lacked sufficient conception evidence and proof of diligence. A new declaration that includes a showing both additional evidence of conception and proof of diligence is filed herewith under 37 C.F.R § 1.131. This new declaration document both a company private demonstration of the invention along with technical publication guide information on this invention, which show both conception and reduction to practice before the McBrearty reference date. The Applicants assert that this declaration is effective to overcome McBrearty as a prior reference.

Conclusion

In view of the foregoing, the applicants' believe that the application is in condition for allowance and respectfully request favorable reconsideration.

In the event the Examiner deems personal contact desirable in the disposition of this case, the Examiner is invited to call the undersigned attorney at (508) 293-7998.

Please charge all fees occasioned by this submission to Deposit Account No. 05-0889.

Respectfully submitted,

4/5/07
Date

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